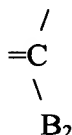


**Listing of Claims:**

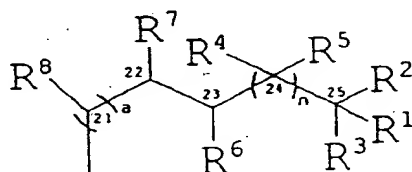
1. (Currently Amended) A method of reducing the risk ~~eliminating the onset~~ of Type 1 diabetes in a predisposed human patient by up to 90 percent, comprising the steps of:  
identifying a human patient predisposed to Type 1 diabetes ~~patient, wherein Type 1 diabetes is detectable in a patient with autoantibodies to  $\beta$ -cell antigens;~~ and  
orally administering to the patient an effective amount of a  $1\alpha$ -hydroxy vitamin D compound such that the risk of onset of Type 1 diabetes or Type 1 diabetes symptoms is reduced ~~eliminated~~.
2. (Original) The method of claim 1 wherein the compound is selected from the group consisting of  $1\alpha,25$ -dihydroxyvitamin  $D_3$  ( $1,25-(OH)_2D_3$ ), 19-nor- $1,25$ -dihydroxyvitamin  $D_2$  (19-nor- $1,25-(OH)_2D_3$ ), 24-homo-22-dehydro-22E- $1\alpha,25$ -dihydroxyvitamin  $D_3$  (24-homo-22-dehydro-22E- $1,25-(OH)_2D_3$ ),  $1,25$ -dihydroxy-24(E)-dehydro-24-homo-vitamin  $D_3$  ( $1,25-(OH)_2$ -24-homo  $D_3$ ), 19-nor- $1,25$ -dihydroxy-21-epi-vitamin  $D_3$  (19-nor- $1,25-(OH)_2$ -21-epi- $D_3$ ),  $1\alpha$  hydroxy vitamin  $D_3$  or  $1\alpha$  hydroxy vitamin  $D_2$ .
3. (Previously Amended) The method of claim 1 wherein the vitamin D compound is selected from the group consisting of vitamin D compounds with the following formula:

wherein  $X^1$  and  $X^2$  are each selected from the group consisting of hydrogen and acyl; wherein  $Y^1$  and  $Y^2$  are each selected from the group consisting of H, O-aryl, O-alkyl, aryl, and alkyl of 1-4 carbons, taken together to form an alkene having the

structure of  $B_1$



where  $B_1$  and  $B_2$  are selected from the group consisting of H, alkyl of 1-4 carbons and aryl, and can have a  $\beta$  or  $\alpha$  configuration;  $Z^1=Z^2=H$  or  $Z^1$  and  $Z^2$  together are  $=CH_2$ ; and wherein R is an alkyl, hydroxyalkyl or fluoroalkyl group, or R represents the following side chain:



wherein (a) may have an S or R configuration,  $R^1$  represents hydrogen, hydroxy or O-acyl,  $R^2$  and  $R^3$  are each selected from the group consisting of alkyl, hydroxyalkyl and fluoralkyl, or, when taken together represent the group  $-(CH_2)_m$ -wherein m is an integer having a value of from 2 to 5,  $R^4$  is selected from the group consisting of hydrogen, hydroxy, fluorine, O-acyl, alkyl, hydroxyalkyl and fluoralkyl, wherein if  $R^5$  is hydroxyl or fluoro,  $R^4$  must be hydrogen or alkyl,  $R^5$  is selected from the group consisting of hydrogen, hydroxy, fluorine, alkyl, hydroxyalkyl and fluoroalkyl, or  $R^4$  and  $R^5$  taken together represent double-bonded oxygen,  $R^6$  and  $R^7$  taken together form a carbon-carbon double bond,  $R^8$  may be H or  $CH_3$ , and

wherein n is an integer having a value of from 1 to 5, and wherein the carbon at any one of positions 20, 22, or 23 in the side chain may be replaced by an O, S, or N atom.

4. (Original) The method of claim 1 wherein the oral administration is via diet.

5. (Original) The method of claim 1 wherein the oral administration is at the concentration of between 0.005  $\mu\text{g}$  to 0.2  $\mu\text{g}$  per kilogram of patient weight per day.

Claims 6 – 10 (Cancelled)

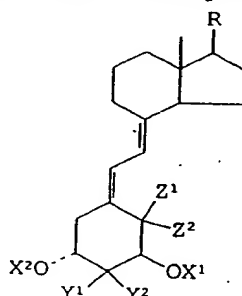
11. (New) A method of reducing the risk of Type 1 diabetes in a predisposed human patient by up to 90 percent, comprising the steps of:

identifying a human patient predisposed to Type 1 diabetes, wherein Type 1 diabetes is detectable in a patient with autoantibodies to glutamic acid decarboxylase; and

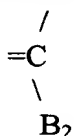
orally administering to the patient an effective amount of a  $1\alpha$ -hydroxy vitamin D compound such that the risk of onset of Type 1 diabetes or diabetes symptoms is reduced.

12. (New) The method of claim 11 wherein the compound is selected from the group consisting of  $1\alpha,25$ -dihydroxyvitamin  $\text{D}_3$  ( $1,25\text{-(OH)}_2\text{D}_3$ ), 19-nor- $1,25$ -dihydroxyvitamin  $\text{D}_2$  (19-nor- $1,25\text{-(OH)}_2\text{D}_3$ ), 24-homo-22-dehydro-22E- $1\alpha,25$ -dihydroxyvitamin  $\text{D}_3$  (24-homo-22-dehydro-22E- $1,25\text{-(OH)}_2\text{D}_3$ ),  $1,25$ -dihydroxy-24(E)-dehydro-24-homo-vitamin  $\text{D}_3$  ( $1,25\text{-(OH)}_2\text{-24-homo D}_3$ ), 19-nor- $1,25$ -dihydroxy-21-epi-vitamin  $\text{D}_3$  (19-nor- $1,25\text{-(OH)}_2\text{-21-epi-D}_3$ ),  $1\alpha$  hydroxy vitamin  $\text{D}_3$  or  $1\alpha$  hydroxy vitamin  $\text{D}_2$ .

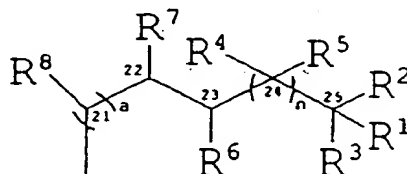
13. (New) The method of claim 11 wherein the vitamin D compound is selected from the group consisting of vitamin D compounds with the following formula:



wherein  $X^1$  and  $X^2$  are each selected from the group consisting of hydrogen and acyl; wherein  $Y^1$  and  $Y^2$  are each selected from the group consisting of H, O-aryl, O-alkyl, aryl, and alkyl of 1-4 carbons, taken together to form an alkene having the structure of  $B_1$



where  $B_1$  and  $B_2$  are selected from the group consisting of H, alkyl of 1-4 carbons and aryl, and can have a  $\beta$  or  $\alpha$  configuration;  $Z^1=Z^2=H$  or  $Z^1$  and  $Z^2$  together are  $=CH_2$ ; and wherein R is an alkyl, hydroxyalkyl or fluoroalkyl group, or R represents the following side chain:



wherein (a) may have an S or R configuration,  $R^1$  represents hydrogen, hydroxy or O-acyl,  $R^2$  and  $R^3$  are each selected from the group consisting of alkyl, hydroxyalkyl and fluoroalkyl, or, when taken together represent the group  $-(CH_2)_m$ -wherein m is an integer having a value of

from 2 to 5, R<sup>4</sup> is selected from the group consisting of hydrogen, hydroxy, fluorine, O-acyl, alkyl, hydroxyalkyl and fluoroalkyl, wherein if R<sup>5</sup> is hydroxyl or fluoro, R<sup>4</sup> must be hydrogen or alkyl, R<sup>5</sup> is selected from the group consisting of hydrogen, hydroxy, fluorine, alkyl, hydroxyalkyl and fluoroalkyl, or R<sup>4</sup> and R<sup>5</sup> taken together represent double-bonded oxygen, R<sup>6</sup> and R<sup>7</sup> taken together form a carbon-carbon double bond, R<sup>8</sup> may be H or CH<sub>3</sub>, and wherein n is an integer having a value of from 1 to 5, and wherein the carbon at any one of positions 20, 22, or 23 in the side chain may be replaced by an O, S, or N atom.

14. (New) The method of claim 11 wherein the oral administration is via diet.

15. (New) The method of claim 11 wherein the oral administration is at the concentration of between 0.005  $\mu\text{g}$  to 0.2  $\mu\text{g}$  per kilogram of patient weight per day.